

Name: _____

p1028b: Combine Like Terms (v14)

Example

Combine like terms.

$$-x + 9x^2 + 2 - 6x + 7x^2 + 6 + x^2 - 9 + 8x - 7$$

Answer

Combine the quadratic terms.

$$9x^2 + 7x^2 + x^2 \equiv 17x^2$$

Combine the linear terms.

$$-x - 6x + 8x \equiv 1x$$

Combine the constant terms.

$$2 + 6 - 9 - 7 \equiv -8$$

The final result:

$$17x^2 + x - 8$$

Question 1

Combine like terms.

$$7x - 2 - 9 + 3x^2 + 5x - 4x + 6x^2 + 1 - 5x^2 + 4$$

$$4x^2 + 8x - 6$$

Question 2

Combine like terms.

$$-x + x - 4x^2 + 3x - 8x^2 - 2x^2 + 9 - 7 - 5 + 7x$$

$$\color{red}{-14x^2 + 10x - 3}$$

Question 3

Combine like terms.

$$-4x + 2 + 7x - 9 - 7x^2 + 5x + 8 - 5x^2 + 6x^2 + 9$$

$$\color{red}{-6x^2 + 8x + 10}$$

Question 4

Combine like terms.

$$6x^2 - 4x^2 + 4 - 2 + x + 2 - 8x^2 + 9x - 6x + 7$$

$$\color{red}{-6x^2 + 4x + 11}$$